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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,166

04/19/2004

Tung-Wei KAO

LITP0035USA

3165

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7590

01/26/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION

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MERRIFIELD, VA 22116

EXAMINER

THOMAS, LUCY M

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/709,166	KAO ET AL.	
	Examiner	Art Unit	
	Lucy Thomas	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: Recitation of "an electrostatic discharge path installed between the electric appliance and the circuit board" renders the claim indefinite as it is unclear to which part of the electric appliance the electrostatic discharge path is connected. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged Prior Art in view of Leeson (US 5,330,365). Regarding Claim 1, Applicant's Prior Art teaches an electrostatic discharge protection circuit (Figure 1) comprising a first printed circuit board 200 comprising a first grounding line 220; a flexible cable 300 comprising a connecting line 320 having one end connected to the first grounding line; a second printed circuit board 100 comprising a second grounding line 120 electrically connected to another end of the connecting line; and a housing (see Paragraph 5, line 9). Applicant's Prior Art does not disclose an electrostatic discharge protection path in the flexible cable having one end connected to the first grounding line, and the other end connected to the housing. Leeson discloses flexible cable 3

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comprising a connecting line (see lip 11 in Figure 2), and an electrostatic discharge protection path (see metal layer 12 in Figures 2-4) having one end connected to a first grounding line, and the other end connected to a housing 10 (Column 4, lines 1-22). It would have been obvious to those skilled in the art at the time the invention was made to provide an electrostatic discharge protection path as taught by Leeson, to provide a shorter, direct path to ground before entering the region where the printed circuit boards are located, for protection of the printed circuit boards.

Regarding Claim 2, Applicant's Prior Art teaches the electrostatic discharge protection circuit, wherein the first printed circuit board is fixed on a tray of an optical disk drive and the second printed circuit board is fixed in the housing (Paragraph 5). Regarding Claim 3, Applicant's Prior Art teaches the electrostatic discharge protection circuit, wherein the optical disk drive is a slim optical disk drive (Paragraph 5, line 9). Regarding Claim 4, Applicant's Prior Art teaches the electrostatic discharge protection circuit, wherein the flexible cable is U-shaped flexible cable (see Figure 1, Paragraph 5, line 5). Regarding Claim 5, Leeson discloses the other end of the electrostatic discharge protection path is connected to the housing without insulation (Column 4, lines 6-9).

Claims 6-12 basically recite the elements of Claims 1-5, except that Claims 6-12 recite an electric appliance instead of a second printed circuit board as one component connected to the electrostatic discharge protection circuit. Applicant's Prior Art teaches an electric appliance (see spindle motor 202 and associated circuitry on board 200 in

Figure 1), which is electrically connected to the first grounding line and therefore the electrostatic discharge protection circuit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucy Thomas whose telephone number is 571-272-6002. The examiner can normally be reached on Monday - Friday 8:00 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT
December 21, 2005



PHUONG T. VU
PRIMARY EXAMINER